

LOWELL REGIONAL WASTEWATER UTILITY

WASTEWATER COLLECTION AND TREATMENT



SERVING LOWELL
CHELMSFORD
DRACUT
TEWKSBURY
TYNGSBORO

July 13, 2021

RE: MA0100633

To Whom It May Concern:

The following is an itemization of status and improvements for the Lowell Regional Wastewater Utility during June 2021. Enclosed is a copy of the Discharge Monitoring Report, the required NPDES permit monitoring data, a summary of CSO discharges, and a summary of high flow bypasses for this period.

The Discharge Monitoring Report is being submitted electronically through the Environmental Protection Agency NetDMR website and also via email to the Massachusetts Department of Environmental Protection.

PERMIT EXCEEDANCES:

There were no permit exceedances for the month of June 2021.

PROCESS CHANGES AND IMPROVEMENTS:

- All Screw pumps are available and in service.
- The primary clarifiers are undergoing annual maintenance. The clarifiers are drained and serviced one at time during dry weather.
 - Primary Clarifiers No.1, No.2 and No.5 have been fully serviced.
- The scum tanks were emptied 5/10 through 5/21. This has reduced grease loading in the facility.
- As of 4/2, 3 of 4 aeration trains are online during dry weather. The 4th train is no longer required for process control due to rising wastewater temperature. The 4th train is brought online for wet weather treatment to maximize flow through secondary. The offline trains are undergoing annual maintenance service during dry weather.
 - Aeration Trains No.1, No.3, and No.4 have been fully serviced.
- The RAS, WAS, and Plant Water Pumps electric VFDs have been upgraded and are operational.
 This upgrade adds to the reliability of the facility pumping systems.
- The Utility is in the process of rebuilding the RAS pumps.
 - o RAS Pump No.2 is offline and being rebuilt.
- The Utility continues to test an automated secondary bypass chlorination system. The system doses chlorine into the bypass line during a secondary bypass. This allows for additional chlorine contact time for bypassed flow.
- A higher chlorine residual is being maintained in the chlorine contact chamber during wet weather high flow.

- The Effluent Flow Measurement Weirs were calibrated by a third party on 5/14.
- A new remote pump station, Hamilton Canal Pump Station, was brought online 5/17.

ODOR COMPLAINTS:

• There was one odor complaint reported during this period. The odor complaint was at least partially contributed to odors from the collection system.

Respectfully,

Aaron Fox, Operations Manager Lowell Regional Wastewater Utility

First St. Blvd. (Rt. 110) Lowell MA 01850

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR

MONITORING PERIOD

то

Form Approved.

OMB No. 2040-0004

NAME: LOWELL REGIONAL WW UTILITY

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

ADDRESS: 451 FIRST ST BLVD

> LOWELL, MA 01850 LOWELL REGIONAL WW UTILITY

FACILITY: LOCATION: 451 FIRST ST BLVD

LOWELL, MA 01850

ATTN: AARON FOX, OPERATIONS MANAGER

MA0100633 PERMIT NUMBER

MM/DD/YYYY

06/01/2021

FROM

035-A ISCHARGE NUMBER

MM/DD/YYYY

06/30/2021

DMR MAILING ZIP CODE: 01850

MAJOR \$

(SUBR E)

TREATED EFFLUENT

External Outfall

NO DISCHARGE

		QUANTITY OF	RLOADING		QI	UALITY OR COI	NO. EX FREQUENCY OF ANALYSIS		SAMPLE TYPE		
	VALUE 1	VALUE 2	VALUE 3	UNITS	VALUE 1	VALUE 2	VALUE 3	UNITS		UF ANALYSIS	TYPE
SAMPLE MEASUREMEN	******	*****	*****	*****	7.10	*****	*****	mg/L	0	01/01	GR
PERMIT REQUIREMENT	г *****	*****	****	*****	Req. Mon. MO AVG	*****	*****	mg/L		Daily	GRAB
SAMPLE MEASUREMEN ⁻	******	*****	*****	*****	6.8	****	7.3	SU	0	01/01	GR
PERMIT REQUIREMENT	г *****	*****	*****	*****	6.0 MINIMUM	*****	8.3 MAXIMUM	SU		Daily	GRAB
SAMPLE MEASUREMEN ⁻	T 1,092	3,427	3,901	lb/d	4.6	10.56	13.0	mg/L	0	05/07	24
PERMIT REQUIREMENT	8,006 T MO AVG	12,010 WKLY AVG	Req. Mon. DAILY MX	lb/d	30 MO AVG	45 WKLY AVG	Req. Mon. DAILY MAX	mg/L		Weekdays	COMP24
SAMPLE MEASUREMEN ⁻	****** T	*****	*****	****	224.7	****	*****	mg/L	0	02/30	24
PERMIT REQUIREMENT	т *****	*****	*****	*****	Req. Mon. MO AVG	*****	*****	mg/L		Twice per Month	COMP24
SAMPLE MEASUREMEN ⁻	******	*****	*****	****	97.9	****	*****	%	0	01/30	CA
PERMIT REQUIREMENT	г *****	*****	*****	*****	85 MINIMUM	*****	*****	%		Monthly	CALC
SAMPLE MEASUREMEN	T *****	*****	*****	*****	16.02	*****	18.74	mg/L	0	01/07	CA
PERMIT REQUIREMENT	г *****	*****	*****	*****	Req. Mon. MO AVG	*****	Req. Mon DAILY MAX	mg/L		Weekly	CALC
SAMPLE MEASUREMEN	******	*****	*****	*****	14.16	*****	16.90	mg/L	0	01/07	24
PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO AVG	*****	Req. Mon DA I LY MAX	mg/L		Weekly	COMP24
SAMPLE MEASUREMEN	****** T	*****	*****	*****	1.86	*****	3.83	mg/L	0	01/07	24
PERMIT REQUIREMENT	*****	****	*****	*****	Req. Mon. MO AVG	*****	Req. Mon DAILY MAX	mg/L		Weekly	COMP24
					5			TELEI	PHONE	DATE	
my pers	y direction or supervision in sonnel properly gather and e person or persons who m athering the information, the	accordance with a sy I evaluate the information lanage the system, or a information submitte	stem designed to assi- tion submitted. Based those persons directly d is, to the best of my	6			-	978 67	74-4248	07/13/2021	
sub	bmitting false information, i	ncluding the possibility violations.	y of fine and imprisonr	ment for knowing	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				EA CODE	NUMBER	MM/DD/YYY
	PERMIT REQUIREMEN' SAMPLE MEASUREMEN' PERMIT REQUIREMEN' SAMPLE MEASUREMEN PERMIT REQUIREMEN' REQUIREMEN' SAMPLE MEASUREMEN PERMIT REQUIREMEN' REQUIREMEN' SAMPLE MEASUREMEN PERMIT REQUIREMEN' ICC. ICC. ICC. ICC. ICC. ICC. ICC. ICC	SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT I certify under penalty of law my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in personnel property gather and the person or persons who my direction or supervision in perso	SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE	SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE	SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT MO AVG MO AVG MKLY AVG SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT MO AVG MKLY AVG MO AVG MKLY AVG MO AVG	SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE	SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT LORGING SAMPLE MEASUREMENT SAMPLE MEASUREMENT LORGING SAMPLE MEASUREMENT SAMPLE MEASUREMENT LORGING SAMPLE MEASUREMENT SAMPLE MEASUREMENT LORGING SAMPLE MEASUREMENT LORGING SAMPLE MEASUREMENT SAMPLE MEASUREMENT LORGING SAMPLE MEASUREMENT SAMPLE MEASUREMENT LORGING SAMPLE MEASUREMENT SAMPLE ME	SAMPLE	SAMPLE	No. No.	SAMPLE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR

MONITORING PERIOD

TO

Form Approved.

OMB No. 2040-0004

NAME:

LOWELL REGIONAL WW UTILITY

ADDRESS:

451 FIRST ST BLVD

LOWELL, MA 01850

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

FACILITY:

LOWELL REGIONAL WW UTILITY

LOCATION:

ATTN:

451 FIRST ST BLVD

LOWELL, MA 01850

AARON FOX, OPERATIONS MANAGER

MA0100633 PERMIT NUMBER

MM/DD/YYYY

06/01/2021

FROM

035-A ISCHARGE NUMBER

MM/DD/YYYY

06/30/2021

DMR MAILING ZIP CODE: 01850

MAJOR \$

(SUBR E)

TREATED EFFLUENT

External Outfall NO DISCHARGE

PARAMETER			QUANTITY OF	RLOADING		QI	JALITY OR CO	NCENTRATION		NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		VALUE 1	VALUE 2	VALUE 3	UNITS	VALUE 1	VALUE 2	VALUE 3	UNITS		OF AWALTOIS	IIFE	
Phosphorus, total (as P)	SAMPLE MEASUREMEN	******	*****	*****	*****	0.35		0.47 mg/		0	01/07	24	
00665 1 0 Effluent Gross	PERMIT REQUIREMEN	******	*****	*****	*****	Req. Mon MO AVG			mg/L		Weekly	COMP24	
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMEN	NT 25.65	26.25	37.03	MGD	*****	*****	*****	*****	0	99/99	RC	
50050 1 0 Effluent Gross	PERMIT REQUIREMEN	32 12MO AVG	Req. Mon MO AVG	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	RCORDR	
Chlorine, total residual	SAMPLE MEASUREMEN	******	*****	*****	*****	100.00	*****	210	μg/L	0	01/01	GR	
50060 1 0 Effluent Gross	PERMIT REQUIREMEN	******	*****	*****	*****	196 MO AVG	*****	338 DAILY MX	μg/L		Daily	GRAB	
Chlorine, total residual	SAMPLE MEASUREMEN	******	*****	*****	*****	164.67	*****	900	μg/L	0	99/99	RC	
50060 0 0 Intake	PERMIT REQUIREMEN	******	*****	*****	*****	Req. Mon. MO AVG	*****	Req. Mon. DAILY MX	μg/L		Continuous	RCORDR	
Ecoli	SAMPLE MEASUREMEN	NT *****	*****	*****	*****	12.38	*****	36	MPN	0	05/07	GR	
Effluent Gross	PERMIT REQUIREMEN	IT *****	*****		*****	126 ****** MO GEO		409 DAILY MX			Weekdays	GRAB	
BOD, carbonaceous, 05 day, 20C	SAMPLE MEASUREMEN	NT 1,607	2,232	5,070	lb/d	7.1	9.22	19.0	mg/L	0	05/07	24	
80082 1 0 Effluent Gross	PERMIT REQUIREMEN	6,672 MO AVG	10,675 WKLY AVG	Req. Mon. DAILY MX	lb/d	25 MO AVG	40 WKLY AVG	Req. Mon. DAILY MX	mg/L		Weekdays	COMP24	
BOD, carbonaceous, 05 day, 20C	SAMPLE MEASUREMEN	******	*****	*****	*****	144.7	*****	*****	mg/L	0	02/30	24	
80082 G 0 Raw Sewage Influent	PERMIT REQUIREMEN	******	*****	*****	*****	Req. Mon. MO AVG	*****	****	mg/L		Twice per Month	COMP24	
BOD % Removal	SAMPLE MEASUREMEN	******	*****	*****	*****	96.3	*****	*****	%	0	01/30	CA	
Effluent	PERMIT REQUIREMEN	******	*****	*****	*****	85 MINIMUM	*****	*****	%		Monthly	CALC	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	10	certify under penalty of law						_	TELE	PHONE	DATE		
AARON FOX OPERATIONS SUPERINTENDENT		by direction or supervision in personnel properly gather and ne person or persons who may lathering the information, the belief, true, accurate, and cub bubitting false information, in	evaluate the informationage the system, or information submitte information submitte inplete. I am aware to	tion submitted. Based those persons directly d is, to the best of my that there are significa				978 674-4248		07/13/2021			
TYPED OR PRINTED	St	aomining raise illiointation, l	violations.	y or time and imprisorif	noncio knowing	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				A CODE	NUMBER	MM/DD/YYYY	

NPDES Report (Permit NO. MA0100633)

June 2021

Page 1 of 2

Printed on Tue Jul 13 2021

Date	Weather	Plant	Effluent	Flow	D.O.	Chlorine Residual	Res Conti	orine idual nuous ording	Plan	t Effluer	nt pH	E-coli	Eff	fluent CE	BOD	Effluent TSS		
		Total (MG)	Max. Hourly (MGD)	Min. Hourly (MGD)	Grab (mg/L)	Grab (mg/L)	Avg. (mg/L)	Max. (mg/L)	Min.	Max.	Grab	(cfu/ 100 ml)	(mg/L)	(lbs)	(% Rem)	(mg/L)	(lbs)	(% Rem)
01-Tue	Dry	30.38	34.27	24.15	7.6	0.18	0.01	0.06	6.6	6.7	7.0	25	5.6	1,418.8	96.25	7.3	1,849.5	95.7
02-Wed	Dry	29.05	34.60	23.13	7.5	0.14	0.03	0.10	6.6	6.7	7.0	7	4.2	1,017.4	97.22	4.8	1,162.7	97.2
03-Thu	Dry	28.44	32.84	22.54	7.4	0.09	0.03	0.07	6.7	6.8	7.0	21	4.7	1,114.9	96.32	5.0	1,186.0	96.1
04-Fri	Dry	27.32	30.36	21.84	6.9	0.19	0.04	0.08	6.7	6.7	7.0	4						
05-Sat	Wet	25.96	30.33	20.16	7.0	0.05	0.03	0.09	6.7	6.7	7.0	2						
06-Sun	Dry	26.74	31.30	20.17	7.0	0.01	0.01	0.06	6.7	6.8	6.9		4.2	936.7	96.65	4.2	936.7	97.3
07-Mon	Dry	25.92	31.47	10.37	7.0	0.09	0.00	0.12	6.6	6.8	7.0	7	4.8	1,037.7	96.26	3.2	691.8	98.1
08-Tue	Dry	25.77	30.47	19.13	6.9	0.17	0.00	0.03	6.7	6.8	6.9	19	4.0	859.7	97.46	2.9	623.2	98.3
09-Wed	Wet	25.07	29.17	19.13	7.0	0.00	0.04	0.14	6.7	6.8	7.0	27	5.0	1,045.6		2.4	501.9	
10-Thu	Dry	24.22	28.56	18.17	7.0	0.09	0.07	0.32	6.8	6.9	7.0	16	5.8	1,171.6	96.36	2.6	525.2	98.6
11-Fri	Wet	24.09	27.41	18.11	7.4	0.11	0.05	0.31	6.7	6.9	7.1	6						
12-Sat	Wet	37.03	89.92	26.63	7.4	0.02	0.03	0.30	6.4	6.9	6.8							
13-Sun	Dry	25,54	30.25	19.42	6.9	0.02	0.06	0.09	6.6	6.8	7.0		10.2	2,172.2	93.39	3.7	788.0	99.7
14-Mon	Wet	32.03	74.63	19.31	5.7	0.16	0.09	0.30	6.5	6.8	7.0	23	9.9	2,644.2		7.5	2,003.2	
15-Tue	Wet	35.99	64.76	22.22	7.1	0.16	0.10	0.43	6.5	6.7	7.3	15	10.0	3,001.1		13.0	3,901.5	
16-Wed	Wet	25.69	29.77	20.70	7.5	0.17	0.00	0.04	6.5	6.7	6.8	13	8.0	1,714.2		2.0	428.5	
17-Thu	Dry	24.38	27.74	19.04	7.0	0.06	0.01	0.07	6.6	6.8	6.9	16	8.0	1,626.7	94.29	4.0	813.4	98.2
18-Fri	Dry	24.04	27.27	18.31	7.0	0.14	0.04	0.16	6.7	6.8	7.0	1						
19-Sat	Dry	23.36	28.03	17.26	7.0	0.05	0.09	0.24	6.7	6.8	7.0							
20-Sun	Dry	23.07	28.05	16.76	7.0	0.03	0.08	0.19	6.6	6.8	6.9		5.0	962.0	97.68	2.0	384.8	99.3
21-Mon	Dry	23.78	27.96	17.39	7.5	0.16	0.11	0.22	6.6	6.8	7.0	16	6.0	1,189.8	97.49	2.0	396.6	99.2
22-Tue	Wet	27.51	47.41	17.16	7.8	0.18	0.08	0.20	6.7	6.8	6.9	27	8.0	1,835.7		4.0	917.9	
23-Wed	Dry	23.77	28.17	17.94	7.3	0.21	0.00	0.00	6.5	6.8	7.0	16	6.0	1,189.3	96.95	3.0	594.6	98.8
24-Thu	Dry	23.43	26.66	18.68	7.1	0.14	0.00	0.00	6.6	6.8	6.9	27	7.0	1,367.8	96.52	2.0	390.8	96.6
25-Fri	Wet	22.60	25,41	17.03	7.2	0.17	0.00	0.00	6.7	6.8	6.9	10						
26-Sat	Dry	22.31	27.17	15.68	7.1	0.07	0.03	0.10	6.7	6.8	7.0				06.24		1 121 0	05.0
27-Sun	Dry	22.66	27.44	16.00	7.0	0.07	0.03	0.13	6.7	6.8	7.0		6.0	1,134.0	96.24	6.0	1,134.0	96.9
28-Mon	Dry	22.85	27.24	16.31	6.9	0.04	0.03	0.08	6.6	6.8	7.0	14	7.0	1,333.7		2.0	381.1	99.3
29-Tue	Dry	22,51	26,62	16.71	6.8	0.02	0.06	0.11	6.7	6.8	6.9	36	8.0	1,501.5	95.17	5.0	938.5	97.9
30-Wed	Wet	31.99	89.36	16.18	7.0	0.01	0.05	0.90	0.0	14.0	6.9	20	19.0	5,069.6		13.0	3,468.7	
Min		22.31	25.41	10.37	5.7	0.00	0.00	0.00	0.0	6.7	6.8	1	4.0	860	93.4	2.0	381	95.7
Max		37.03	89.92	26.63	7.8	0.21	0.11	0.90	6.8	14.0	7.3	36	19.0	5,070	97.7	13.0	3,901	99.7
Avg		26.25	36.49	18.85	7.1	0.10	0.040	0.16			7.0	16	7.1	1,607	96.3	4.6	1,092	98.0
Total		787.47										12		35,344			24,018	

Lowell Regional Wastewater Utility

NPDES Report (Permit NO. MA0100633)

Total

80.11

June 2021

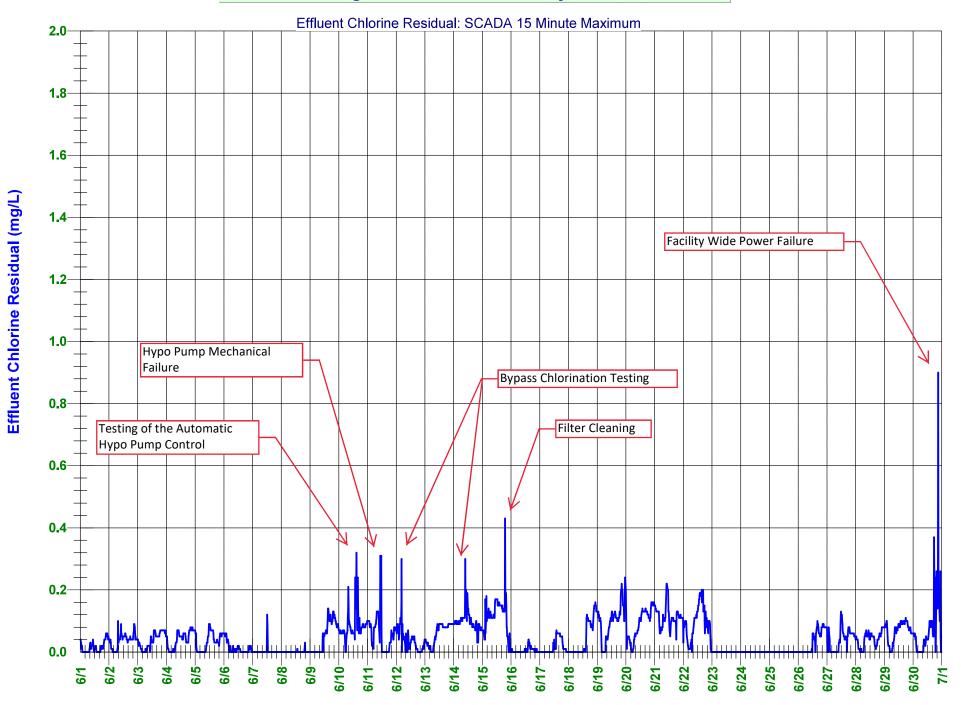
-	Tue Jul 13 2021			Page 1 of
Date	Total Nitrogen	TKN	Nitrate + Nitrite	Total Phosphorus
	(mg/L)	(mg/L)	(mg/L)	(mg/L)
01-Tue				
02-Wed				
03-Thu	17.18	16.90	0.28	0.34
04-Fri				
05-Sat				
06-Sun				
07-Mon				
08-Tue				
09-Wed	17.38	16.70	0.68	0.26
10-Thu				
11-Fri				
12-Sat				
13-Sun				
14-Mon	12.88	11.70	1.18	0.47
15-Tue				
16-Wed				
17-Thu				
18-Fri				
19-Sat				
20-Sun				
21-Mon	13.93	10.10	3.83	0.28
22-Tue				
23-Wed				
24-Thu				
25-Fri				
26-Sat				
27-Sun				
28-Mon	18.74	15.40	3.34	0.38
29-Tue				
30-Wed				
Min	12.88	10.10	0.28	0.26
Max	18.74	16.90	3.83	0.47
Avg	16.02	14.16	1.86	0.35

70.80

9.31

1.73

Lowell Regional Wastewater Utility - MA0100633



Date (6/1/2021 to 6/30/2021)

/ Eff Chlorine Residual (SCADA 15 Min Max)

Monthly Bypass Report

Date	Start Time	Start Influent Flow (MGD)	End Time	End Influent Flow (MGD)	Duration (Hours)	Volume (MG)
6/1/2021						
6/2/2021						
6/3/2021						
6/4/2021						
6/5/2021						
6/6/2021						
6/7/2021						
6/8/2021						
6/9/2021						
6/10/2021						
6/11/2021						
6/12/2021	04:43 am	63.47	08:09 am	54.67	3.5	4.68
6/13/2021						
6/14/2021	10:10 am	67.35	12:30 pm	54.79	2.2	2.26
6/15/2021	03:27 am	61.58	10:09 pm	55.04	2.7	1.75
6/16/2021						
6/17/2021						
6/18/2021						
6/19/2021						
6/20/2021						
6/21/2021						
6/22/2021						
6/23/2021						
6/24/2021						
6/25/2021						
6/26/2021						
6/27/2021						
6/28/2021						
6/29/2021						
6/30/2021	06:04 pm	81.61	11:01 pm	50.76	5.0	4.95

Lowell Wastewater Utility High Flow Management Monthly Summary January 2021 - December 2021

Date		Water harge	Duck Isl	and Rain	Trea	ited High F	low	All Diversions				
	Flow	Peak Hour	Rain	Rain	Event	Duration		Event	Duration			
	(MG)	(MGD)	Days	Inches	(No.)	(Hours)	(MG)	(No.)	(Hours)	(MG)		
Jan 2021	954	106.3	6	2.4	2	20.7	18.4	1	4.87	16.86		
Feb 2021	754	104.1	11	2.2	1	5.1	9.5					
Mar 2021	891	72.4	7	1.9	3	11.3	6.3					
Apr 2021	970	97.5	10	6.7	7	45.5	53.6	2	13.28	86.43		
May 2021	1,159	100.9	15	5.4	11	73.3	80.0	2	4.37	13.39		
Jun 2021	885	94.4	10	1.9	4	13.4	13.6	1	0.55	2.17		
Jul 2021	525	109.6	12	7.0	8	62.9	88.5	5	12.00	124.04		
Aug 2021												
Sep 2021												
Oct 2021												
Nov 2021												
Dec 2021												
Total	6,138	685.1	71	27.4	36	232.1	269.9	11	35.1	242.9		
Max	1,159	109.6	15	7.0	11	73.3	88.5	5	13.3	124.0		

	Barasford Street		Beaver Brook		Me	rrimack St	reet	F	Read Stree	t	Т	ilden Stre	et	V	/alker Stre	et	v	arren Stre	et	1	West Stree	et .		
Date	Event	Duration	Volume	Event	Duration	Volume	Event	Duration	Volume	Event	Duration	Volume	Event	Duration	Volume	Event	Duration	Volume	Event	Duration	Volume	Event	Duration	Volume
	(No.)	(Hours)	(MG)	(No.)	(Hours)	(MG)	(No.)	(Hours)	(MG)	(No.)	(Hours)	(MG)	(No.)	(Hours)	(MG)	(No.)	(Hours)	(MG)	(No.)	(Hours)	(MG)	(No.)	(Hours)	(MG)
Jan 2021	1	3.5	4.8	1	0.7	0.1	1	4.9	7.3				1	2.8	0.4				1	0.6	0.3	1	2.2	4.0
Feb 2021																								
Mar 2021																								
Apr 2021	1	9.8	15.5	1	2.7	1.5	1	9.1	14.3				1	5.4	3.5	1	2.6	4.2	1	3.3	13.6	2	13.3	33.9
May 2021	1	2.6	3.5	1	0.6	0.1	1	2.3	3.2				1	1.1	0.4				1	0.6	0.7	2	4.4	5.4
Jun 2021													1	0.1					1	0.6	2.1			
Jul 2021	2	5.0	7.8	3	5.4	9.9	4	9.2	17.4				4	8.2	9.7	3	3.7	12.8	3	6.0	25.3	4	12.0	41.1
Aug 2021																								
Sep 2021																								
Oct 2021																								
Nov 2021																								
Dec 2021																								
Total	5	20.9	31.6	6	9.4	11.6	7	25.4	42.2	0	0.0	0.0	8	17.5	14.1	4	6.3	17.1	7	11.0	42.0	9	31.9	84.4
Max	2	9.8	15.5	3	5.4	9.9	4	9.2	17.4	0	0.0	0.0	4	8.2	9.7	3	3.7	12.8	3	6.0	25.3	4	13.3	41.1